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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,221	10/09/2003	Wade Schwartzkopf	100110187-1	8349

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EXAMINER	
BLACKWELL, JAMES H	
ART UNIT	**PAPER NUMBER**
2176	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/681,221	SCHWARTZKOPF, WADE
	Examiner	**Art Unit**
	James H. Blackwell	2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/9/03*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to an original application filed 10/09/2003 with a priority date of **10/09/2003**.

2. Claims 1-26 are pending in this application. Claims 1, 13, and 22 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 13-16, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano (U.S. Patent No. 5,685,002 filed 09/26/1994 issued 11/04/1997).

In regard to independent Claim 1 (and similarly independent Claims 13, and 22), Sano teaches *receiving a number of images for placement onto the photobook page* (Fig.4, Step #2; frames are received), *the photobook page having a first dimension and a second dimension* (Fig. 4, Steps #5 and #6 steps of creating and visualizing multi-picture image data is generated from N pictures on a roll of film in accordance with a visualization format for arranging the pictures in a square matrix (n, n) (*first and second dimensions*)). It is noted that Sano also treats arrangements of (n, m) where n, and m are different (*first dimension greater than the second dimension*) (see Fig. 8; examples Figs. 10-17).

Sano also teaches that when this subroutine is called in Step #5, a square root .sqroot. (N) of the frame number (N) is calculated (Step #10). The number n of columns or rows of the matrix (n, n) is calculated based on .sqroot. (N) (Step #11). If .sqroot. (N) is an integer p having no fraction, this integer p is used as the number n. On the contrary, if .sqroot. (N) has a fraction, .sqroot. (N) is rounded up and an integer (p+1) is used as the number n (implies using the modulus of the number). For example, if N=25, n=5 because .sqroot. (25)=5.0. If N=28, n=6 because .sqroot. (28)=5.29 (thus, *approximating a square root of the number of images*) (Col. 7, lines 26-40; Fig. 5).

Sano also teaches *determining a total number of page divisions along the first dimension of the photobook page, wherein the total number of page divisions corresponds to the approximated square root* in that when the subroutine shown in Fig. 8 is called in Step #5 of Fig. 4, a square root of the frame number (N) is calculated (Step #30). Similar to the first subroutine, *the number n of columns or rows of the matrix (n, n) is calculated based on the square root of (N) (Step #31)*. It is then judged in Step #32 whether the frame number (N) is greater than n.multidot.(n-1). If n.multidot.(n-1)<N, a multi-picture image data of the layout pattern (n, n) matrix is generated (Step #33). If N.ltoreq.n.multidot.(n-1), a multi-picture image data of the layout pattern (n, n-1) matrix is generated (Step #34). In similar to the first subroutine, specifically, the visualization format corresponding to the calculated layout pattern of (n, n) or (n, n-1) matrix is set.

(47) For example, if N=21, n=5 since .sqroot. (21)=4.58. In addition, since 5.times.4=20<21. the layout pattern of pictures is set to (5, 5) matrix. On the other hand,

if N=19, n=5 similarly to the case where N=21 since .sqroot. (19)=4.35. However, since 19<5.times.4=20, the layout pattern of the pictures is set to (5, 4) matrix.

Sano also teaches *evaluating whether the photobook page is to be divided into a regular array of image areas using a modulus of the number of images and the square root* in that a multi-picture image data is generated from N pictures in accordance with a visualization format for arranging the pictures in a square matrix (n, n). When this subroutine is called in Step #5, a square root .sqroot. (N) of the frame number (N) is calculated (Step #10). The number n of columns or rows of the matrix (n, n) is calculated based on .sqroot. (N) (Step #11). If .sqroot. (N) is an integer p having no fraction, this integer p is used as the number n. On the contrary, if .sqroot. (N) has a fraction, .sqroot. (N) is rounded up and an integer (p+1) is used as the number n. For example, if N=25, n=5 because .sqroot. (25)=5.0. If N=28, n=6 because .sqroot. (28)=5.29 (Col. 7, lines 26-40; Fig. 5).

It would have been obvious to one of ordinary skill in the art at the time of invention to assume that a modulus of the square root of N was being used for Sano's computations as to whether or not the matrix was square or rectangular, providing the benefit of maximizing the amount of space available on the page.

Sano implies *determining a number of image areas to be included in a page division using a ratio of the number of images to the approximated square root* since the procedure described above used by Sano uses a modulus determination involving the number of images involved and the claimed computation would also produce a modulus of the number of images.

Sano also teaches *distributing the images automatically on the photobook page among the multiple image areas* (see Fig. 8, previous arguments above).

In regard to dependent Claim 2 (and similarly dependent Claims 14, and 23), Sano teaches *establishing a grid on the photobook page as a regular array when a modulus for the approximated square root and the number of images is zero* (Col. 7, lines 26-40; Fig. 5).

In regard to dependent Claim 3 (and similarly dependent Claims 15, and 24), Sano teaches *when a modulus for the approximated square root and the number of images is greater than zero, establishing a grid on the photobook page as an irregular array, and evaluating each page division for further division into a multiple number of image areas* (Col. 7, lines 26-40; Fig. 5).

In regard to dependent Claim 4 (and similarly dependent Claims 16, and 25), Sano teaches *selecting a first number of page divisions to have a first number of image areas, where the first number corresponds to the modulus; and selecting a second number of page divisions to have a second number of image areas, wherein the second number is different from the first number* (Col. 7, lines 26-40; Fig. 5; modulus calculation implied, determination of division numbers computed).

5. Claims 5-12, 17-21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano in view of Geigel et al. (hereinafter Geigel, U.S. Patent Application Publication 2002/0122067, published 09/05/2002).

In regard to dependent Claim 5 (and similarly dependent Claims 17, and 26), Sano fails to teach *randomly selecting a first set of the page divisions from among the total number of page divisions to have the first number of image areas*. However, Geigel teaches using a genetic algorithm to automatically produce a layout of images on a page. The process starts at step 64, and then an initial population of solutions is generated at step 66. This initialization is typically done through *random* placement of the image population (Pg. 4, Paragraph [0067]). Geigel at the very least begins with a random layout of images. It would have therefore been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sano and Geigel as both inventions relate to layout of images on a page. Adding Geigel provides the benefit of choosing placement of images through a random process.

In regard to dependent Claim 6 (and similarly dependent Claim 18), Sano teaches *dividing the page into page divisions and multiple image areas* (see Figs. 10-17 for multiple examples of pages that have been divided into image areas).

In regard to dependent Claim 7 (and similarly dependent Claim 19), Sano teaches *scaling each image to fit within one of the multiple image areas; and positioning each image in a position within its image area* (Col. 10, lines 40-67; Col. 11, lines 1-9).

In regard to dependent Claim 8 (and similarly dependent Claim 20), Sano teaches *refining the position of each image within its image area* (Col. 10, lines 40-67; Col. 11, lines 1-9).

In regard to dependent Claim 9 (and similarly dependent Claim 21) and Claims 10-11, Sano fails to teach *a random number for modifying a border width of each image*. However, Geigel suggests that image parameters including size of the image, its placement on the page, rotation, orientation, spacing etc closely depend on random numbers and processes (Pg. 5, Paragraphs [0074]-[0075]). It would have therefore been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sano and Geigel as both inventions relate to layout of images on a page. Adding Geigel provides the benefit of choosing placement of images through a random process providing for greater artistic expression by randomly positioning and manipulating images on a page layout.

In regard to dependent Claim 12, Sano teaches *determining a position coordinate value for the image using the position offset value* (see Figs. 6-7 determines position coordinate values for image).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is 571-272-4089. The examiner can normally be reached on Mon-Fri.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James H. Blackwell
01/13/2006

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